

**Electronic Filing System (EFS) Data**  
**Electronic Patent Application Submission**  
**USPTO Use Only**

EFS ID: 12082  
Application ID: 09682242  
Title of Invention: HIGH EFFICIENCY CONVERSION  
OF NITROGEN OXIDES IN AN  
EXHAUST AFTERTREATMENT  
DEVICE AT LOW TEMPERATURE  
First Named Inventor: Lifeng Xu  
Domestic/Foreign Application: Domestic Application  
Filing Date: null  
Effective Receipt Date: 2001-08-09  
Submission Type: Utility Patent Filing  
Filing Type: new-utility  
Confirmation Number: 0  
Attorney Docket Number: 200-1374 AJL  
Digital Certificate Holder: cn=Damian Porcari, ou=Registered Attorneys, ou=Patent and  
Trademark Office, ou=Department of Commerce, o=U.S.  
Government, c=US  
Certificate Message Digest: 3cv4kh2WpbjXEmduiPGGHg==  
Total Fees Authorized: \$1018.0  
Payment Category: DA - Deposit Account  
Deposit Account Number: 61510  
Deposit Account Name: Sheri L. Charles



# TRANSMITTAL FORM

Electronic Version 1.0.2

Stylesheet Version: 1.0

Attorney Docket Number: 200-1374 AJL



## HIGH EFFICIENCY CONVERSION OF NITROGEN OXIDES IN AN EXHAUST AFTERTREATMENT DEVICE AT LOW TEMPERATURE

First Named Inventor: Lifeng Xu

### SUBMITTED BY

Organization Name:

Ford Motor Company

Name:

Sheri Lynn Charles Electronic  
Application Specialist

Electronic Signature Mark: /slc

Date Signed: 20010809

*I certify that the use of this system is for OFFICIAL correspondence between patent applicants or their representatives and the USPTO. Fraudulent or other use besides the filing of official correspondence by authorized parties is strictly prohibited, and subject to a fine and/or imprisonment under applicable law.*

*I, the undersigned, certify that I have viewed a display of document(s) being electronically submitted to the United States Patent and Trademark Office, using either the USPTO provided style sheet or software, and that this is the document(s) I intend for initiation or further prosecution of a patent application noted in the submission. This document(s) will become part of the official electronic record at the USPTO.*

### Attached Files:

specification

specification.xml

declaration

declaration 1 of 3.tif

declaration

declaration 2 of 3.tif

declaration  
declaration  
declaration  
declaration  
bibd-transmittal  
fee-transmittal  
patent-assignment

declaration 3 of 3.tif  
consent.tif  
prior art 1 of 2.tif  
prior art 2 of 2.tif  
200-1374apds.xml  
200-1374fee.xml  
200-1374asgn.xml

**Attached Image File(s):**

declaration 1 of 3.tif  
declaration 2 of 3.tif  
declaration 3 of 3.tif  
consent.tif  
prior art 1 of 2.tif  
prior art 2 of 2.tif

106080 "2428960

Comments:

FOUO 2422960

**DECLARATION AND POWER OF ATTORNEY - ORIGINAL APPLICATION**Attorney's Docket No.  
200-1374

As a below named inventor, I hereby declare:

My residence, post office address and citizenship are as stated below next to my name;

I verily believe I am the original, first and sole inventor or an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled

**HIGH EFFICIENCY CONVERSION OF NITROGEN OXIDES IN AN EXHAUST AFTERTREATMENT DEVICE AT LOW TEMPERATURE**

the specification of which is attached hereto.

I have reviewed and understand the contents of the specification identified above, including the claims.

I acknowledge my duty to disclose information of which I am aware that is material to the examination of this application in accordance with Section 1.56(a), Title 37 of the Code of Federal Regulations; and as to application for patents or inventor's certificate on the invention filed in any country foreign to the United States of America, prior to this application by me or my legal representatives or assigns,

☒ no such applications have been filed, or

☐ such applications have been filed as follows:

☐ I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below

COUNTRY	APPLICATION NO.	DATE OF FILING (month, day, year)	DATE OF ISSUE (month, day, year)	PRIORITY CLAIMED UNDER 35 USC 119	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

(Application Number) (Filing Date) (Status - patented, pending, abandoned)

(Application Number) (Filing Date) (Status - patented, pending, abandoned)

**POWER OF ATTORNEY:** - I/we hereby appoint Practitioners at Customer No. 022844 as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office and all foreign Patent Offices.

Attorney Docket No: 200-1374

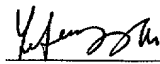
Please call 313-322-7725 if this paper becomes separated from the file.

William J. Coughlin - 29,143

**Address all correspondence and telephone calls to:**

Diana D. Brehob  
Ford Global Technologies, Inc.  
One Parklane Boulevard  
600 East Parklane Towers  
Dearborn, Michigan 48126 Telephone: 1-313-3221879

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon

NAME AND MAILING ADDRESS OF INVENTOR:	RESIDENCE	CITIZENSHIP	SIGNATURE	DATE
Lifeng Xu 28602 Golfpointe Farmington Hills, MI 48331 US	Farmington Hills, MI 48331 US	China		6-28-01
Robert Walter McCabe 18591 San Quentin Drive Lathrup Village, MI 48076 US	Lathrup Village, MI 48076 US	U.S.A		

Attorney Docket No: 200-1374 Please call 313-322-7725 if this paper becomes separated from the file.

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PATENT APPLICATION

ASSISTANT COMMISSIONER FOR PATENTS  
Washington, D. C. 20231

Case Docket No. **200-1374**  
Date: July 27, 2001

Sir:

Inventor(s):  
**Robert McCabe**  
**Lifeng Xu**

For: **HIGH EFFICIENCY CONVERSION OF NITROGEN OXIDES IN AN EXHAUST AFTERTREATMENT  
DEVICE AT LOW TEMPERATURE**

The attorney or agent below has reviewed this application and its attachments and consents to  
electronic filing by the assignee.

Respectfully submitted:



Allan J. Lipka  
Attorney or Agent of Record  
Registration No. 32,258  
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600 Parklane Towers East  
Dearborn, MI 48126  
Telephone: 1-313-3221879

20010727 24228960

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 1 of 2

Application Number	To be assigned
Filing Date	Herewith
Applicants	Xu, McCabe
Group Art Unit	
Examiner Name	
Attorney Docket Number	200-1374

EXAMINER INITIAL*	Cite No. 1	DOCUMENT NUMBER	Kind Code <sup>2</sup> (if known)	NAME	DATE MM-DD-YY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		5609022		Cho	03-11-97	
		6089015		Strehlau et al.	07-18-00	
		6119451		Vogtlin et al.	09-19-00	
		6125629		Patchett	10-03-00	
		4403476		Johnson et al.	09-13-83	
		5201802		Hirota et al.	04-13-93	
		5522218		Lane et al.	06-04-96	
		5845487		Fraenkle et al.	12-08-98	
		5950422		Dolling	09-14-99	
		6082102		Wissler et al.	07-04-00	
		4854123		Inoue	08-08-89	
		5369956		Daudel et al.	12-06-94	
		5540047		Dahlheim et al.	07-30-96	
		5609026		Berriman et al.	03-11-97	

[illegible]

DATE CONSIDERED

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 2 of 2

Application Number	To be assigned
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Filing Date	Herewith
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Applicants	Xu, McCabe
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Group Art Unit
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Examiner Name \_\_\_\_\_

Attorney Docket Number | 200-1374

[illegible][illegible]

**DATE CONSIDERED**

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

# FEE TRANSMITTAL

Electronic Version 1.0.4

Stylesheet Version: 1.0

*Patent fees are subject to annual revisions on or about October 1st of each year.*

Large Entity

**TOTAL FEES AUTHORIZED: \$ 1018**

The commissioner is hereby authorized to charge indicated processing and/or publication fees and credit any overpayments to:

Deposit Account Number: 06-1510



Deposit Account Name: Ford Global Technologies, Inc.

Charge Any Additional Fee Required Under 37 C.F.R. Sections 1.16 and 1.17.

## SUBMITTED BY

Authorized Name: Sheri L. Charles

Electronic Signature Mark: /slc

Date Signed: 20010808

## BASIC FILING FEE

Fee Description	Fee Code	Fee Paid
Utility Filing Fee	101	\$ 710

Subtotal For Basic Filing Fee: \$ 710

## EXTRA CLAIM FEES

	Fee Code	Fee	Extra Claims	Fee Paid
Total Claims: 26	103	\$ 18	6	\$ 108
Independent Claims: 5	102	\$ 80	2	\$ 160

Subtotal For Extra Claims Fees: \$ 268

ADDITIONAL FEES

Fee Description	Fee Code	Fee Paid
Recording Each Patent Assignment Per Property Fee	581	\$ 40

Subtotal For Additional Fees: \$ 40

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